



US006121501A

United States Patent [19]

Motoyuki et al.

[11] **Patent Number:** **6,121,501**[45] **Date of Patent:** ***Sep. 19, 2000**[54] **PROCESS FOR PREPARING 2,6-DIALKYLNAPHTHALENE**5,292,934 3/1994 Sikkenga et al. .
5,844,064 12/1998 Motoyuki et al. .[75] **Inventors:** Masahiro Motoyuki, Osaka; Koji Yamamoto, Kobe, both of Japan; Ajit Vishwanath Sapre, Moorestown; John Paul Mc Williams, Woodbury, both of N.J.; Susan Patricia Donnelly, Kingwood, Tex.**FOREIGN PATENT DOCUMENTS**

WO 90/03961 4/1990 WIPO .

[73] **Assignees:** Kabushiki Kaisha Kobe Seiko Sho, Kobe, Japan; Mobil Oil Corporation, Fairfax, Va.*Primary Examiner*—Walter D. Griffin
Assistant Examiner—Thuan D. Dang
Attorney, Agent, or Firm—Oblon, Spivak, McClelland, Maier & Neustadt, P.C.[*] **Notice:** This patent is subject to a terminal disclaimer.[57] **ABSTRACT**[21] **Appl. No.:** 09/288,847[22] **Filed:** Apr. 9, 1999

A process for producing 2,6-dialkyl-naphthalene from a hydrocarbon feedstock that contains at least one component selected from the group consisting of dialkyl-naphthalene isomers, monoalkyl-naphthalene isomers, polyalkyl-naphthalenes, and naphthalene, is provided that includes the following steps:

Related U.S. Application Data

[63] Continuation-in-part of application No. 08/948,299, Oct. 10, 1997.

[51] **Int. Cl.⁷** C07C 1/00; C07C 4/12; C07C 5/22; C07C 2/68[52] **U.S. Cl.** 585/323; 585/312; 585/313; 585/314; 585/315; 585/486; 585/489; 585/478; 585/481; 585/449; 585/450; 585/467[58] **Field of Search** 585/323, 312, 585/313, 314, 315, 486, 489, 478, 481, 449, 450, 467

I. separating the hydrocarbon feedstock and/or a dealkylation product fed from step III into a naphthalene fraction, a monoalkyl-naphthalene fraction, a dialkyl-naphthalene fraction and a remaining products fraction;

II. separating and purifying 2,6-dialkyl-naphthalene from the dialkyl-naphthalene fraction of step I;

III. dealkylating the hydrocarbon feedstock and/or the remaining products fraction of step I and feeding the dealkylation product to step I; and

IV. alkylating the naphthalene and monoalkyl-naphthalene fractions of step I;

wherein the hydrocarbon feedstock is fed to step I or step III.

[56] **References Cited****U.S. PATENT DOCUMENTS**

4,950,824 8/1990 Shiroto et al. .

26 Claims, 9 Drawing Sheets